

Becoming Critical Consumers and Producers of Text: Teaching Literacy with Web 1.0 and Web 2.0

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By taking advantage of the variety of tools available online, teachers can position their students as critical text consumers and producers.

When Lara (first author) was a fourth-grade teacher in the mid-1990s, her school was in the process of becoming “wired” to the Internet. At the time, online access was not commonplace, particularly in urban schools. Things have since changed. As of 2005, 100% of public schools had Internet access, and 94% had classroom instructional access (Wells & Lewis, 2006). Kristin’s (third author) fourth-grade classroom, for example, includes two instructional desktop computers and access to a mobile laptop lab with wireless Internet. Although wired classrooms are more commonplace than they were 10 years ago, the pedagogical tools available to teachers and students in wired classrooms are changing more rapidly than ever before (Leu, 2000). Moreover, not all online tools, or teachers’ and students’ uses of them, are alike. Rather, they represent a broad range of purposes, with different affordances and limitations for literacy practices and teaching. This range is manifested in the distinction between Web 1.0 and Web 2.0 tools.

Whereas Web 1.0 tools allow only website owners (not users) to collaborate or manipulate the information or text displayed, Web 2.0 tools enable users to create, edit, manipulate, and collaborate online. As Hedberg and Brudvik (2008) explained, “the social software supported in Web 2.0 enables consumers to become producers. Learners can contribute to the resources and not just consume them” (p. 140).

Some Web 1.0 tools do allow users to create products and print them, but these products cannot be saved or changed after leaving the website. Thus, unlike Web 1.0 tools, Web 2.0 tools “belong” to the collective, or to all collaborators. Some examples of Web 2.0 tools used in classrooms include blogs, digital storytelling (e.g., VoiceThread.com), and wikis (e.g., pbwiki and wikispaces). We recognize the need for broadband access to connect to and effectively use some Web 2.0 applications (particularly those with video streaming). According to the National Center for Education Statistics (Wells & Lewis, 2006), on average, 97% of all public schools have a broadband connection, with the lowest percentage in rural areas (94%). With this in mind, it becomes important for schools and districts to be aware of how available bandwidth is allocated for classroom use (see www.cosn.org/broadband/).

Although we see valuable uses for both Web 1.0 and Web 2.0 tools in the literacy classroom, these tools position users differently. That is, they encourage and expect students and teachers to assume different roles (e.g., author or producer of text, or more passive consumer of text). As with reading traditional print texts, users of any Internet space or tool (Web 1.0 or 2.0) will actively construct meaning rather than passively receive the words or meaning on the screen (Rosenblatt, 1985). Web 2.0 tools, however, are explicitly *designed* for collaboration or manipulation of text in ways that Web 1.0 tools are not (Solomon & Schrum, 2007).

In this article, we describe the use of a Web 1.0 tool (ReadWriteThink.org’s Comic Creator, www.readwritethink.org/MATERIALS/COMIC/) and a Web 2.0 tool (Blogspot, now Blogger.com) in Kristin’s fourth-grade classroom. We delineate the affordances

and limitations of these tools, including how they positioned Kristin and her students, and how she and her students negotiated the limitations and repositioned themselves in the process. Our purpose is not to systematically compare Comic Creator and Blogspot, as they were designed and used in Kristin's classroom for different purposes. Rather, we present them as examples to highlight key differences between Web 1.0 and Web 2.0 tools, and to raise considerations for their use during literacy instruction.

Online Tools and Literacy Instruction

Researchers have argued that engaging students in, and then using and producing texts within, online networks is essential for developing a critically literate citizenry in the global information age (Leu, Kinzer, Coiro, & Cammack, 2004). Evidence suggests that new technologies also can support students who struggle with composing print texts (Cunningham & Allington, 2007) or illustrations (Baker & Kinzer, 1998), and that students' motivation to write may increase when they are able to publish their work online for an authentic audience (Karchmer, 2001). Furthermore, the Internet has become a vital professional resource for teachers. According to the Web support services at ReadWriteThink.org (a partnership between the International Reading Association [IRA] and the National Council of Teachers of English [NCTE] offering literacy instructional resources, plans, and student materials), 1.7 million visits were logged to the site in April 2008 alone (S. Filkins, personal communication, August, 2008), a mark of the site's popularity among educators (Anderson & Balajthy, 2007).

Multiple factors, however, complicate instructional uses of Internet communication technologies (ICTs). Leander (2008), for instance, found that students in an all-girls high school were not positioned as critical consumers of online information. Rather than searching for and evaluating websites, students were provided with acceptable sites by their teacher. Similarly, Knobel and Lankshear (2006) argued that typical school uses of blogs do not promote authentic communication or idea development. These limited uses may be related to teachers' discomfort with shifting definitions of text and an adherence to print based and linear conceptualizations of literacy

(Boling, 2008; Cuban, 2001). Even when teachers are comfortable with ICTs, however, they may face challenges integrating the use of these tools with traditional conceptualizations of teachers' roles as authorities and conveyors of knowledge—a stance challenged by Web 2.0 tools (Cummins, Brown, & Sayers, 2007). Here we take a complex view of ICTs, in which how online tools are understood and used is just as, if not more, important than the tools themselves. This view aligns with sociocultural theories of literacy.

Theoretical Framework

Sociocultural theory, which provides the foundation for the New Literacy Studies (Gee, 1996; Street, 1995), foregrounds the social contexts and purposes for literacy practices. This differs from an autonomous view, which situates literacy practices as independent from the contexts of practice in which they occur, and which positions teachers as instructional technicians and students as consumers of curriculum. From a sociocultural perspective, the literacy tools people use (e.g., websites, dictionaries, picture books, pencils) do not have inherent value or meaning. Instead, they are understood in terms of their affordances for achieving particular purposes in different social contexts. This resembles Muffoletto's (2001) vision of educational technology: "educational technology is not about devices, machines, computers, or other artifacts, but rather it is about systems and processes leading to a desired outcome" (p. 3).

This is not to say that tools are unimportant; indeed we argue that Web 2.0 tools afford particular practices and position students and teachers in ways that Web 1.0 tools do not. However, as Boody (2001) observed, "We cannot understand all of a technology's potential effects before it is employed" (p. 20). From a sociocultural perspective, teachers and students are neither passive recipients of curriculum nor fully independent agents, but rather negotiate what they do



and who they are in practice. Students and teachers become curriculum designers (not just consumers) because what is commonly thought of as curriculum is always remade in practice. We are not advocating an “anything goes” approach. All three of us must navigate state standards in our teaching. We argue, however, that these standards can be achieved in ways that position both teachers and students as critical consumers and active producers of texts and curriculum.

Research and Instructional Context

Kristin’s instructional context was unique. She taught a self-contained fourth-grade bilingual class consisting entirely of eight native Spanish-speaking boys, all at different stages of English-language development. In addition, three of her eight students received special services for either learning disabilities or speech. Although her district expected teachers to use a standard reading series, Kristin supplemented it with reading and writing workshop.

Kristin and her eight students participated in a two-year research project conducted by Lara (a university professor) with the assistance of Tami (second author, a doctoral student) exploring multilingualism, multiliteracies (New London Group, 1996), and teacher development, which included two teacher study groups, interviews, and videotaped observations of classroom instruction. Audio and video transcripts of these data were analyzed using constant comparative analysis (Glaser & Strauss, 1967) to identify patterns and themes. We draw our examples in this article from observations of Kristin’s instruction, focusing on her and her students’ use of Comic Creator (Web 1.0) during a writing unit on graphic novels, and Blogspot (Web 2.0) for reader response. We describe how each of these online tools was used, highlighting what we consider to be the affordances and limitations of each, and how these limitations might be negotiated by teachers and students.

Writing with Comic Creator

Comic Creator is a Web 1.0 tool at ReadWriteThink.org for students to generate their own comic strips. Upon entering the site, students are prompted to type in a title, subtitle, and the author(s) of their comic

strip. They then select a frame template of one to six frames, and for each frame, they can select different speech or thought bubbles, characters, props, and backgrounds. At the bottom of each frame is a space for students to type a caption. ReadWriteThink.org offers suggestions for using Comic Creator, including retelling familiar stories, illustrating new vocabulary, and re-creating favorite cartoons or comic strips. However, Kristin used the tool with a different purpose in mind.

Kristin used Writer’s Workshop in her classroom to support her students’ authentic, purposeful writing, their development of voice as writers, and to allow her students to be active agents in their exploration of writing. However, the eight boys in Kristin’s class during the year in which we collected data still saw Writer’s Workshop as something they did for a grade, and their writing lacked creativity and voice. Kristin needed a different way to engage them. Inspired by her participation in Lara’s study group on multimodal literacies, Kristin felt a unit on graphic novels would build on her students’ interests in art, video games, and popular magazines like *Nickelodeon*. She used a PowerPoint presentation to introduce the unit, drawing her students’ attention to how authors of graphic novels convey meaning through images, color, font styles, and other semiotic systems. She ended this introduction by orienting her students to the Comic Creator tool. Kristin also provided graphic organizers and story plot charts for her students to use as pre-writing tools. Seven of her eight students used Comic Creator at some point in their composing process.

Affordances

One affordance of Comic Creator is its potential for encouraging students to write within a genre traditionally not recognized in school. In addition to being of high interest and lowering affective barriers, the multimodal nature of comics may provide scaffolds for children who struggle with print (Cary, 2004). Comic Creator is also simple to use. Although its simplicity is limiting in ways we highlight later, it may facilitate modeling of or engagement with new concepts, such as dialogue and story sequencing, and enable otherwise reluctant writers to jump into the composing process easily and quickly and to have a final product within a fairly short time frame. Two of Kristin’s students who began composing by hand set aside their original stories to compose on

Comic Creator partly because of the ease and speed with which comics can be generated. One student, Tomás (all students' names are pseudonyms), used Comic Creator without diverging much from the tool itself, constructing a flip book held together with a metal ring (see Figure 1).

Limitations

Although we recognize the benefits of structures to scaffold children's engagements with new genres, we identified some limitations of Comic Creator. First, frames appear in preset orders that cannot be manipulated or altered. Although students are able to cut and reorder the frames after printing, like Tomás did, this work is not possible within the tool itself. We noted similar limitations related to illustrations.

As with most Web 1.0 tools, Comic Creator does not allow users to bring their own tools of illustration to bear on the site. The characters, backgrounds, and speech and thought bubbles are prefabricated, ready for students to drag and drop into their frames. While this affords ease of use, students cannot digitally illustrate in a different style (such as Anime) within the tool. Moreover, as Kristin's students noted, the monsters in Comic Creator are cute, a stylistic feature that did not appeal to their sensibilities regarding the character traits of monsters. One of the things that make comics appealing and supportive is the integration of text modes (e.g., font, illustration, print) to produce a coherent storyline. But by limiting the illustration style and the order in which frames are presented, students' storylines and their roles as text producers may be limited. This is captured in Tami's field notes regarding David's story: "I asked him why he switched from his race car storyline. David informed me that a car picture was not an option on the web-site and therefore he had to change his story."

Finally, Comic Creator does not give users the ability to save and return to their work at a later date, to write collaboratively in a synchronized way, or to download frames or compositions. If students wish to coauthor using Comic Creator, they must draft, revise, and edit their work side by side at one computer and in one sitting. We worry that this does not fully support the recursive nature of the writing process, which is lengthy and replete with stops and starts and the need to occasionally set a piece of writing aside to return to at a later date.

Figure 1
Tomás's Flip Book, Produced Using Comic Creator

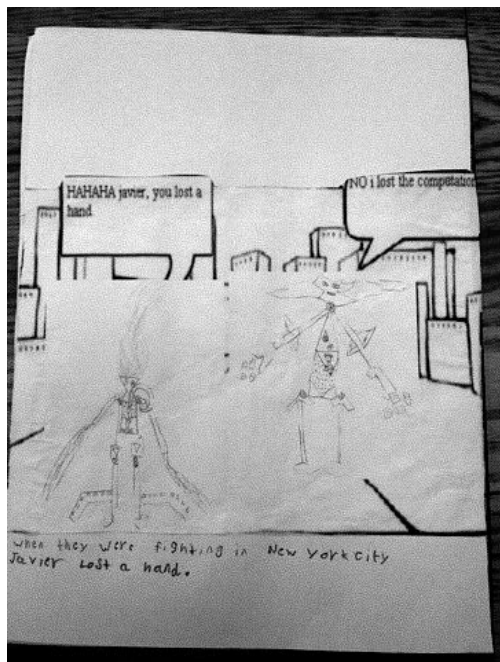


Photograph by Lara Handsfield.

Negotiations

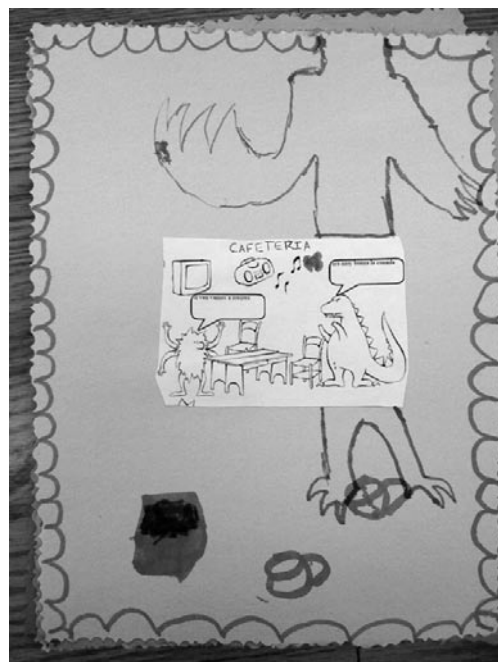
Kristin and her students employed a variety of tools to negotiate these limitations, including the school's document scanner, other computer programs, and a variety of art supplies. Key to this process was Kristin's decision to bring the document scanner into her classroom from the school library, enabling students, like Alex, to work around the issue of how frames are ordered. Because he wanted to digitally publish his graphic novel, Alex was hesitant to print his frames out of order and then physically cut and paste them into a book. Instead, he decided to print out his frames from Comic Creator, scan them, and alter them using Image Composer, software for digitally manipulating images. The scanner also helped students navigate around Comic Creator's limited illustration style. At Kristin's suggestion, Jesús showed José (frustrated with the disconnect between the illustrations and his story) how he used Image Composer

Figure 2
Jesús's Hand Drawn Monsters, Inserted Into a Comic Creator Frame Using Image Composer



Photograph by Lara Handsfield.

Figure 3
Esteban's Comic Creator Frame With Surrounding Artwork



Photograph by Lara Handsfield.

to insert his own hand-drawn monster into a scanned Comic Creator frame (see Figure 2).

Some students' navigations, however, involved moving away from digital technologies. Esteban, for instance, printed his frames and cut them apart manually to mount them on construction paper and add surrounding artwork. This enabled him to add complexity to his illustrations by positioning the "cute" Comic Creator monsters against a backdrop of his own larger and scarier monsters (see Figure 3). Arguably, Esteban's positioning of his monsters as external to, and even enveloping, the Comic Creator monsters produces an interesting effect in which he repositions himself vis-à-vis this tool within a more authorial role than the tool is designed to accommodate.

Many of the Language Arts standards that Comic Creator is designed to support, such as introducing students to new genres and retelling stories, could be accomplished by using quality art supplies, mentor texts, or other nondigital tools. So although Comic

Creator can be motivating and easy to use, it may be best used to teach short, focused lessons on writing elements like story sequence and dialogue rather than for engaging students in creative composition. As with any instructional tool, critical consideration must be given to how the tool positions students and what teachers and students hope to accomplish through its use.

Blogging and Reader Response

Previously, Kristin had her students maintain binders in which they listed books they read and wrote letters to her regarding these books. Each week Kristin responded to her students and assessed their entries using a holistic rubric focused on their use of comprehension strategies, support for opinions, and variety of genres read. Although she intended for her students to engage in meaningful conversations around these texts, they simply wrote what they thought she

wanted to hear and what they thought would earn them a satisfactory grade. What their binders lacked was authentic social interaction around literature.

In February 2007, Kristin replaced the binders with blogs. Blogs (short for Web logs) are interactive and personally composed Web 2.0 spaces in which entries typically appear in reverse chronological order (Davies & Merchant, 2008). Blogs may include images and hyperlinks to websites and other bloggers, and bloggers can dialogue with their audience via a comment section at the end of the blog (Solomon & Schrum, 2007). Kristin's goal in using blogs was to position herself as a participant in ongoing discussions about literature, rather than as the sole audience and evaluator of students' responses, and to position her students as both authors and critical readers of these student-produced texts.

Kristin chose Blogspot (the predecessor to Blogger.com, offered through Google.com), which was relatively simple in presentation and free of ads; a feature she felt would make site navigation easy for her students. However, her students could not sign in with their own identities because they did not have their own Google accounts, necessary for creating Blogspot usernames. Kristin managed this by having her students use her account, typing in their names after their entries. To introduce Blogspot, she demonstrated the site's functions, having her students brainstorm topics about which to write, such as favorite parts of a book, connections to other texts, whether they would recommend the book to others, and questions they might ask one another. After modeling a post, Kristin encouraged her students to explore the site. At first, she coached students on navigating the new site, but then she encouraged them to assist one another to remove herself as primary technology expert.

Affordances

The principal affordance we identified of Blogspot (and blogging in general) was its expectation of social interaction. As Kristin's students became comfortable with the blogs, they began creating new topics and responses to one another. In their previous response binders, her students tended to ignore her responses, moving on to their next entry without responding back. In the blog, however, they asked and responded to one another's questions, and because they were writing for a larger audience (their whole

class, instead of just their teacher), they became more careful writers. Students who previously did not proofread their writing soon began adding conventional punctuation. If there were clarity issues or inconsistencies in a student's entries, his peers were quick to point them out. In the following exchange, José requested clarification regarding Avery's use of the expression "you know," using quotation marks to demarcate the phrase—a significant development considering that José did not typically write with conventional punctuation. (Recall that Kristin's students were at different stages of English language development. All excerpts reflect students' original spelling, punctuation, and syntax.)

Avery: im reading abook called artamas fowl its a book of a boy that wants to find a troll but you have to get a fairy but there not nice you know.He gots abook that can locate the fiary.at the end they the fiarys and humans are together.

Tomás: Hey Avery it me Tomás what is your favorit part of the story? next time I will read the book like one you reading!

José: Avery, what do you mean when you say, "You know."? did you like the book that you are reading.

Soon Kristin became a participant in these discussions, as illustrated in the following example:

Avery: I'm reading a book called the bicycle book. It's about how to ride a bicycle safe. To ride a bicycle safe you need a helmet and some gloves. When you are crossing the street you need to look the both ways so you could see that there are no cars coming on the road so the cars don't cash. If the brakes are not to tight you need tools and a adult.

S1: For what do you need a adult??

S2: What was your favorit part and did you like the book and why do you need a adult?

Avery: I need a adult so he could help you to fix the brakes.

S3: Why do you need gloves when you ride a bike? How does that keep you safe?

Kristin: I wish I had a bike. I used to ride my bike everywhere, but then I got my drivers license. hahaha. Now, I would just like a bike so I can

save gas and not pollute by driving my car everywhere.

This example also shows students' critical readings of their peers' posts. Students' questions regarding Avery's comment about needing an adult served as requests for warrants, holding Avery accountable to his assertions. Even after Avery responds, another student requests more information about another statement. Although teachers could (and often do) take the role of requesting details and warrants for claims in students' writing, having these questions come from peers can provide more authentic and powerful motivation for writing.

Students also made interpersonal connections while blogging. Below, Tomás's response to Alex's post illustrates how students related to one another about text preferences (scary stories), interests (monsters), and unique abilities (drawing):

Alex: I am reading Goosebumps Graphix called Creepy Creatures. One story is about a man that turns into a werewolf and that werewolf has a friend that's actually a real wolf. And a kid found the real wolf. And real wolf lies to the kid and the kid asked him if he was a monster. Then the next night, the werewolf came into his yard, breaks his father's fence where he has his deer and he took one deer. The werewolf killed the deer and his father thought it was his son's wolf. Then the next night, the werewolf came back this yard and made a big hole. And his father still thought it was his wolf and he was going to get rid of him, but the kid told wolf to run into the woods.

S: why did the father think that the wolf killed the deer and crashed the fence.

Jesús: what was your favorites and why do you like that book fome jesús

Tomás: hey Alex its me tomas you like alot of scary story you like a lot of monster right I like when you do lot of cool drawing.

S: Did the boy have the wolf as a pet, Alex? Just wondering.

Kristin: I agree with Tomás. I like your drawings. Maybe you could draw a scary Goosebumps book next.

The blog also afforded opportunities for language development within authentic conversations, which can be particularly helpful for English Language Learners (ELLs). As Penrod (2007) stated,

the use of blogs in an ESL classroom is a great idea for teaching fluency, idiomatic or conversational discourse, and cultural or social exchanges in conversation. Since many ELLs are hesitant to participate or resistant to sharing writing with native speakers, a blog can be a place to practice together and form a community. (p. 30)

Esteban, a newly arrived student from Mexico, enjoyed this medium of communication because it provided time to think about his peers' posts, look up unfamiliar words, and carefully craft his responses in either English or Spanish.

Limitations

Perhaps the most significant limitation of Blogspot encountered by Kristin and her students was the lack of individual spaces where students could customize their own profiles, upload pictures, or establish their own online identities outside of the classroom. Without student accounts and with a limited audience, the blog reproduced classroom conversations. In the following example, for instance, Kristin initiated a blog exchange by posting her response to a book she was reading. While one of her goals was to reduce her role as the sole conversational pivot (Cazden, 2001), the students all responded to Kristin rather than to one another:

Kristin: I am reading a book called Eat, Pray, Love. It's about a lady that is working hard to be a better person. Sometimes she feels sad when things do not work like she wants them to. But, that doesn't mean she stops. She goes all over the world, and meets lots of new people, and begins to realize that she is OK just the way she is. She also learns how to do things on her own and not always need help from other people. I like this book because it makes me think about the challenges in my own life. I am not always perfect and this book helps me see that I can always work on this and make positive changes in my life.

Sl: Miss Cielocha, did you like that book? What parts did you like the most about book?

- S2: MISS CIELOCHA, HOW DO YOU FEEL THIS STORY AND WHY
- S3: Miss Cielocha, wat kind of chalenges???

School-based writing typically has no authentic audience (Putnam, 2001) and provides few opportunities for students to establish membership or “affinity groups” (Gee, 2007) outside of school. Furthermore, school-endorsed blogs often resemble traditional compulsory requirements (Knobel & Lankshear, 2006). Kristin’s participation in the blog appeared to cue students into standard school interactions and responses that did not differ much from the responses they wrote in their binders (e.g., how did you feel about this story and why?).

Negotiations

So how can teachers and students participate in such exchanges without reproducing more “schooled” discourse? Knobel and Lankshear (2006) suggested that to engage in authentic and powerful writing through blogs, students need opportunities to author their own online spaces and purposes for blogging and to blog for a broad audience. While Kristin continued to use her Blogspot account with her eight students,

she signed each of the following year’s class up for their own Gaggle.net accounts, a service her district recently signed up for that includes web accounts for students. Features of Gaggle.net include student e-mail, chat rooms, blogs, message boards, and “digital lockers” to store files. Teachers can set up student accounts, but students may customize their profiles and interact online.

But even if students have some ownership of their blogs, teachers’ established purposes for blogging (i.e., reader response) may still constrain their interactions. It’s important to note that such constraints are not always negative, as teachers’ frequent responses to students’ comments (particularly English learners’), may function as key language scaffolds (Cazden, 2001). There is a tension, then, between teachers’ and students’ purposes that must be considered. If the teacher’s goal for blogs is to monitor and assess students’ responses, then it may not be possible to fully negotiate the limitations we identified. However, Penrod (2007) argued that students who have ownership of their blogs will self-monitor their language use partly because they are writing for an authentic and broad audience.

Table 1
Key Questions to Consider When Selecting Websites/Webtools

- Positioning of students
 - Does the website/tool allow students to both consume and produce text?
 - Do students understand their role in using the site/tool?
 - Do students have freedom to create their own online spaces?
- Instructional goals and assessment
 - What are the teacher’s/students’ purposes for using the site/tool?
 - How can the texts students create be used to assess both social and academic goals?
 - Are there other tools in addition to or in lieu of the site/tool that can be used for the same purpose? What are the affordances and limitations of these options?
 - Is the site/tool easily used by all or will it require modification and/or scaffolding?
 - What sorts of practices might be necessary to position students as critical consumers or producers of text within this site/tool?
- Collaboration and access
 - How can teachers and others interact with students using this tool/site?
 - Are students able to interact in a comfortable and nonthreatening way?
 - Are students able to save and access their work at a later date?
 - Is the tool designed so students can collaborate and share with others online?

Table 2
Websites and Online References for Web 1.0 and Web 2.0 Tools

Tool type	Website
Graphic novels and comic books	<ul style="list-style-type: none"> ■ www.scholastic.com/graphix/ Includes graphic novels/comic stories that students can read and discuss with others on a discussion thread ■ plasq.com/comiclfe-win Offers an online space for users to develop graphic novels and comic books
Digital storytelling and video sharing	<ul style="list-style-type: none"> ■ www.VoiceThread.com A space for creating and sharing digital stories that use text, voice, and pictures and can be shared for collaboration ■ www.TeacherTube.com Online video streaming site. Videos can be viewed, uploaded, downloaded, and embedded into wiki pages
Mapping and webbing	<ul style="list-style-type: none"> ■ www.mind42.com ■ mindmeister.com Online collaborative mind-mapping applications ■ www.gliffy.com A collaborative space to create flow charts and diagrams
Collaboration	<ul style="list-style-type: none"> ■ docs.google.com Open source office applications for individual or collaborative use. Collaboration can be simultaneous ■ www.wikispaces.com ■ www.pbwiki.com Spaces for free educator wiki development and collaboration
Blogging	<ul style="list-style-type: none"> ■ www.blogger.com ■ www.edublogs.org Spaces to develop and house blogs ■ www.bloglines.com An online space to manage your blogroll (blogs you read) and share your blogroll with others. Includes an option to create your own blog
Social networking/ bookmarking	<ul style="list-style-type: none"> ■ www.diigo.com ■ www.delicious.com Spaces where you can keep all your bookmarks so they can be tagged, accessed from any computer, and shared. Diigo also has options for setting up groups (for projects, classes, etc.) and functions to highlight and place notes on bookmarked web pages ■ www.ning.com Online space to create a social network, including groups, messaging, and collaboration
Global classroom collaboration	<ul style="list-style-type: none"> ■ flatclassroomproject2008.wikispaces.com/ Global student collaboration project
For more Web 2.0 resources and information	<ul style="list-style-type: none"> ■ www.go2web20.net/ ■ cooltoolsforschools.wikispaces.com/ ■ teachweb2.wikispaces.com/

If a teacher's goal is for students to engage in authentic interaction around literature, negotiating the discursive limitations of school blogging may be facilitated by using the concept of enabling constraints—specific delimitations to focus students' learning while

still providing a degree of freedom and opportunities for exploration (Luce-Kapler, 2007). Students like Alex, Esteban, and Tomás, for instance, might create a blog for responding to and sharing ideas about sci-fi, horror fiction, and monsters, enabling them to create

an online community centered around common interests and affinities, and to build opportunities for social interaction and motivation for conventional writing. Such a blog may also provide authentic writing that teachers can use to assess students' progress and to participate in ways that can scaffold students' writing and language development.

Rethinking Online Tools in Literacy Instruction

Kristin's students engaged with Comic Creator and blogs differently partly because these tools positioned them differently—as consumers or as critical consumers and producers of text. However, as our examples illustrate, disrupting traditional school literacy practices and teacher/student roles is more complex than the mere distinction between Web 1.0 and 2.0. Although Comic Creator positions students as relatively passive, Kristin engaged in pedagogies to reposition them as critical consumers and producers of digital and multimodal texts. Conversely, while blogging technically creates space for authentic writing, Kristin encountered limitations that needed to be navigated to disrupt “schooling” engagements in reader response. She also positioned herself as a curriculum designer and redesigner (rather than as a consumer), assessing and selecting tools and pedagogies to position her students in powerful ways. This is not easy, as classroom literacy engagements and curricular decisions are mediated by persistent “discursive histories” (Johnston, 2004) that students and teachers bring to bear in their uses of these tools. In other words, students and teachers will likely use online tools in ways that reflect socially and historically based assumptions about how students and teachers should engage in literacy practices, teaching, and learning.

Recently, Kristin followed up with her former students from the past three years to find out how many were participating in online networking spaces. To her surprise, almost 80% had their own online spaces, using Web 2.0 tools on their own outside of school. If children are regularly producing text online, they need to be able to do so critically. Table 1 provides a set of key questions for educators to consider as they explore and select online tools for literacy instruction, and Table 2 offers an abbreviated list of Web 2.0 tools and resources that teachers might explore for instructional use. We hope the considerations we've raised will help teachers approach their use of online

tools in ways that position students as critical text consumers and producers—an essential component of 21st-century literacies.

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